

# STANTON\*

## Calibration Standard

Model 481

\*U.S. PATENT NO. 2,917,500

### 1. SPECIFICATIONS:

- a. Frequency Response: 20 cy to 10 KC  $\pm$  1 DB  
10 KC to 20 KC  $\pm$  2 DB
- b. Output (Nominal): .8 mv. per cm. of recorded level
- c. Channel Separation: -35 DB
- d. Load Resistance: 47K
- e. Cable Capacitance: 250 MMF maximum (keep to minimum)
- f. DC Resistance (Nominal): 3200 ohms/channel
- g. Inductance (Nominal): 640 millihenries/channel
- h. Tracking Force: 2-5 grams
- i. Weight: 10 grams
- j. Mounting Dimensions: 7/16" to 1/2" centers

## Professional Series

Model 400

\*U.S. PATENT NO. 2,917,500

### 1. SPECIFICATIONS:

- a. Frequency Response: 20 - 20,000 cps
- b. Nominal: 2.7 mv per cm/sec.
- c. Interchannel Isolation: 35 db
- d. Recommended load resistance for flat response for stereo and monaural reproduction: 47K to 100K ohms
- e. Maximum permissible cable capacitance: 250 mmf (keep to minimum)
- f. DC Resistance: Nominal, 1475 ohms
- g. Inductance: Nominal, 1.32 henries
- h. Recommended Tracking Force: for A type styli - 2 to 5 grams; for C type styli - 3 to 7 grams
- i. Weight: 11 grams
- j. Mounting Dimensions: 7/16" to 1/2" centers

### 2. MOUNTING HARDWARE supplied with the cartridge is contained in an envelope beneath the foam platform in the plastic box:

- a. two 3-48 x 3/16" screws
- b. plastic stand-off for mounting screws
- c. termination receptacle
- d. two terminal straps
- e. two 3-48 x 5/16" screws

*\*Fine audio components from the  
Professional Products Division of ...*

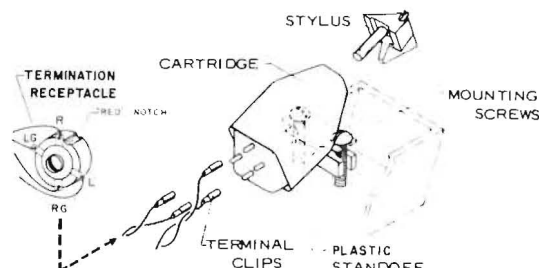
FOR THOSE WHO CAN HEAR THE DIFFERENCE



## Pickering

PICKERING & CO., INC., PLAINVIEW, NEW YORK

FIG. 1



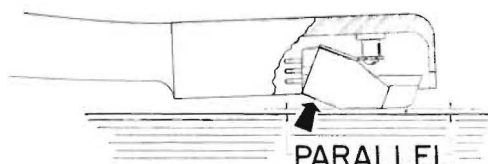
## 3. INSTALLATION —

NOTE—The Stanton termination receptacle may be used in place of the loose terminal clips, see Fig. 1.

In most installations, it will be easier to connect the terminal clips to the terminal pins of the cartridge after soldering clips to arm leads, but prior to mounting the cartridge in the arm or shell.

- a. Figure #1 illustrates the normal method of installing the cartridge in record changer shells and manual tone arms; stand-off posts are normally provided with the arm. However, an additional plastic stand-off is provided with the cartridge. Insert the mounting screws, which are positioned by the plastic stand-off. Tighten the mounting screws into the arm or shell. Each screw should be tightened securely, but care should be used not to strip the threads by exerting excessive force with the screwdriver.

FIG. 2



- b. In some instances, it may be necessary to bend the mounting bracket slightly. After the cartridge is installed, to bring the cartridge surface parallel to the record, apply finger pressure on the rear of the cartridge body at the point indicated by the arrow in Fig. 2.

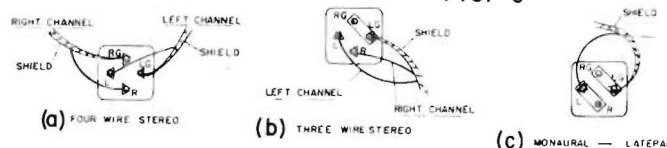


- c. To remove the V-Guard, simply grasp the "V" of the stylus assembly between the tips of the thumb and forefinger - pull gently to remove the stylus assembly. To replace the V-Guard, see diagram - grasp "V" of stylus assembly with stylus point down - slip into cavity as far as it will go. Although the V-Guard stylus assembly is sturdily constructed, it is as vulnerable to physical damage as any other precision instrument - please handle carefully when removing and replacing it.

## 4. CARTRIDGE TERMINATION —

The cartridge terminals may be connected in a number of combinations - See Fig. 3.

FIG. 3



- a. Four wire stereo - (Fig. 3a)

Termination for stereo reproduction when four leads are provided is accomplished by connecting the insulated or hot lead of the right channel to terminal R, and the shield or ground lead of the right channel to terminal RG. The insulated or hot lead of the left channel should be connected to terminal L and the shield or ground lead of the left channel to terminal LG.

- b. Three wire stereo - (Fig. 3b)

Termination for stereo reproduction when three leads are provided requires a terminal strap from the hardware package which connects cartridge terminals RG and LG. The insulated or hot lead of the right channel is connected to cartridge terminal R. The insulated or hot lead of the left channel is connected to terminal L. The shield or ground lead is connected to terminal LG.

- c. Monophonic-Lateral - (Fig. 3c)

Most stereo preamplifiers provide a mode switch with a position labeled "mono". When switched to this position, the two pickup channels are in parallel.

Monophonic reproduction of lateral recordings, when using a single preamplifier or a stereo preamplifier that does not provide a mode switch, requires the use of the two terminal straps provided in the hardware package. One strap is used to connect terminals RG and LG together. The other strap is used to connect terminals L and R together. The insulated or hot lead should be connected to terminal L and the shield or ground lead should be connected to terminal LG.

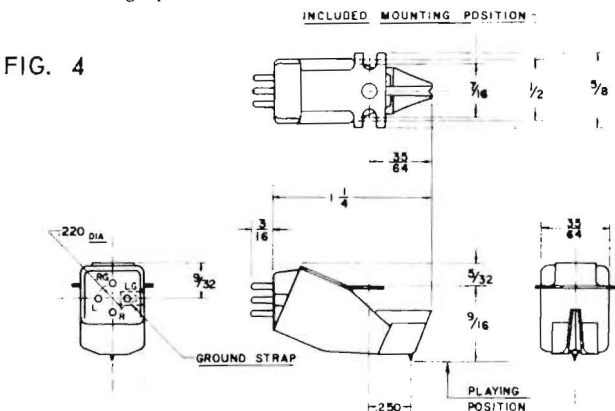
NOTE—A ground strap is provided on the cartridge, which connects the cartridge shell to cartridge terminal LG. This ground strap should be left in place in all installations where the cartridge is mounted in a plastic or non-metallic shell or tone arm. When the cartridge is mounted in a metal arm or changer shell in such a way that the mounting of the cartridge grounds it or makes an electrical contact to the arm, the ground strap should be disconnected from cartridge terminal LG. This strap may easily be disconnected through use of a pair of tweezers or long nose pliers. It is not necessary to remove the ground strap completely from between the cartridge case and the back cover.

Proper grounding of the components in a stereo system is even more important than in a monophonic system. In general, it is good practice to provide a separate ground lead from the turntable or record changer motor or frame to the ground side of the preamplifier input and a separate ground lead from a metal tone arm to the ground side of the preamplifier input.

WARNING—Under no circumstances should solder connections be made to the cartridge terminals. Make all solder connections to the terminal clips from the hardware package provided with each cartridge.

5. ADJUSTMENTS —

For satisfactory stereo reproduction, the stylus tip must be perpendicular to the record plane. Many tone arms require adjustment in their mounting so that the stylus will be perpendicular. A simple visual check to see that the stylus is perpendicular may be made by placing a pocket mirror on the record and placing the arm in the record playing position, with the stylus tip in contact with the mirror. Some record changer shells may be rotated slightly when inserted in the changer arm and adjustment is simplified. In some manual tone arms it will be necessary to level the cartridge by shimming up one side.



The Model 481E is supplied with three styli: D4007A, D4010A, D4027.

V-GUARD Styli are specially designed for the following purposes:

- Model D-4005AA—For use in ultra lightweight tone arms capable of tracking within the range of from 1/2 to 3 grams
- Model D-4007A, Model D-4010A—For use in manual tone arms, recommended tracking force is from 2 to 5 grams
- Model D-4007C, Model D-4010C—For use in automatic record changers
- Model D-4027—For 78 rpm records only.

D-4005AA	.5 mil diamond	Clear V-GUARD	\$19.50
D-4007A	.7 mil diamond	Yellow V-GUARD	18.00
D-4007C	.7 mil diamond	Red V-GUARD	12.00
D-4010A	1 mil diamond	Lt. Gray V-GUARD	18.00
D-4010C	1 mil diamond	White V-GUARD	12.00
D-4027	2.7 mil diamond	Dk. Blue V-GUARD	12.00